

Claim Amendments

In order to expedite prosecution of the current invention, claim 1 has been amended. Basis for the amendment can be found in the specification at page 3, line 22 to page 4, line 1. No new matter has been added by the claim amendment herein

REMARKS/ARGUMENTS

Claims 1-14 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over U.S. Patent No. 5,961,952 ("Crane") in view of any one of JP 11099192 (JP '192), DE 29609958 ("Schott Glaswerke") or U.S. Patent No. 6,200,658 ("Walther"). Claim 1 has been amended. Reconsideration is respectfully requested.

First, on page 3 of the Office Action dated June 29, 2007 "Office Action", the Examiner points out that, in a two-part claim (Jepson), the preamble acknowledges the prior art – in this case JP 11-99192. Applicants agree with this analysis. The Examiner goes on to assert that, in the characterizing part, "Thus, Applicants are claiming that the addition of a metal to a radiopharmaceutical is novel." Applicants respectfully submit that this statement is incorrect and, is a mischaracterization of both previous Claim 1 and Applicant's position (which also has been repeatedly explained). Radiopharmaceutical metal complexes *per se* are well known in the prior art, hence Applicants would never suggest that such species are novel.

The characterizing feature of a two-part claim always reads on the preamble so, in this case, the radiometal (i.e. a radioactive metal) metal complex (not metal) must be in the silica-coated container. Applicant's position has consistently been that radiopharmaceuticals which are metal complexes (not 'metals') in such silica-coated containers are novel. The

Examiner is therefore asked to withdraw the mischaracterizing statement. Claim 1 has been amended to further clarify the situation.

The Examiner's statement is also inaccurate. The addition of a "metal" to the subject matter of JP'192 would not lead to the subject matter of present claim 1. Revised claim 1 makes it clear that an organic ligand which forms a coordination complex with the radiometal (of the radiopharmaceutical) must also be present. It is clear that the chloride ion of JP'192 falls outside such a definition. Hence, the Examiner's construction is invalid.

The Examiner's logic is apparently that, if radiopharmaceuticals in such silica-coated container are known, and if radiopharmaceuticals which are metal complexes are also known, then the combination must be obvious. Applicants are unsure why the Examiner has focused on an analysis of the novelty of a feature of the present claims, when the issue at stake pertains to an obviousness question.

Applicants wish to respectfully remind the Examiner that the required standard for establishing a *prima facie* case of obviousness falls upon the Examiner. Therefore, the evidence upon which the Examiner relies must clearly indicate that a worker of routine skill in the art would view the claimed invention as being obvious, as meant by 35 U.S.C. 103. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (PTO Bd. App. 1979).

Applicants also disagree with the Examiner's construction. First, the Examiner's logic amounts to finding feature A in document 1 and feature B in document 2, and asserting that the combination is obvious. This approach would probably exclude from patentability all selection inventions or indeed claims in Jepson format. Applicants acknowledge that radiopharmaceuticals which are metal complexes are a subset of radiopharmaceuticals in general. Present claim 1 can therefore be regarded as a selection invention over JP '192. That is the logic for the present two-part claim format. Selection inventions have long been regarded as patentable – as long as the subset/selection brings useful benefits that could not

have been anticipated by the prior art. Applicants have argued at length that radiopharmaceuticals which are metal complexes suffer from a range of problems (not simply adsorption), which are solved by silica-coated containers. JP'192 teaches only solving adsorption problems for ionic radiopharmaceuticals (^{201}Tl as the Tl^+ cation), which are not metal complexes. These unforeseen problems, and their solution, were not contemplated by either JP'192 or Crane. The present selection invention is therefore believed to present a useful contribution to the art, and like other selection inventions should be patentable. Applicants refer to Crane – where $^{99\text{m}}\text{Tc}$ isonitrile complexes were known (see Crane Column 1 lines 15 – 26), and tumor imaging with such complexes was also known. A particular type of isonitrile complex (TBI) was, however, regarded as patentable since it had beneficial properties. If the Examiner's current approach and logic were applied, Crane could never have been granted.

Second, the Examiner's logic completely ignores the issues of the suitability of the combination, and motivation to combine. It simply asserts that if the two separate components/features are known in separate prior art documents, then the combination is always obvious. Is it the Examiner's position that 'motivation to combine' is irrelevant to an obviousness analysis? Certainly it would seem that Applicant's extensive arguments on the lack of motivation to combine in the present case have been repeatedly rejected – yet the Examiner has failed to produce any real argument for motivation. Applicants would appreciate the Examiner providing her reasoning in detail in reply to Applicant's responses. Mere reference to objections in "office actions mailed 11/29/05, 05/18/06 and 12/29/06" being maintained is too general. Applicants need to know in detail the Examiner's reasoning as to why the (very detailed) response on each of the historic objections are maintained.

On page 4 of the Office Action, the Examiner also argues that an improper hindsight analysis has not been applied. Applicants concur that a proper analysis must be based on "knowledge which was within the level of ordinary skill at the time the claimed invention was made....". Applicants fail to see, however, that such a standard has been applied in this

instance. The Examiner has disregarded all alternatives apart from those which lead to the subject matter of the present invention:

- (i) alternative coatings – the person skilled in the art had many coatings to chose from, all taught to have advantageous properties;
- (ii) features of Crane to improve – Crane teaches very many features, so the question why the vial/container was chosen is a real one; and
- (iii) removal of solubilizer – Crane teaches that a solubilizer is essential. The Examiner has consistently ignored Applicant's arguments that some additional teaching (or hindsight) would be necessary to justify this change.

The above mentioned are important illustrations of key questions facing the person skilled in the art at the time of the claimed invention. To date, the Examiner has failed to provide any argumentation on (iii), and very limited comments on (i) and (ii). Disregarding the many equally plausible alternatives of (i), and the many more plausible alternatives of (ii), and failing to address the incompatibility issues raised by (iii) is in applicant's view evidence of a hindsight analysis. Consequently, Applicants contend that the Examiner has failed to provide a convincing argument as to motivation to combine based on the prior art of record. In the absence of such reasoning, Applicants maintain their position that an invalid hindsight analysis based on selection of features piecemeal has been applied by the Examiner.

Accordingly, Applicants respectfully submit that the instant application, including claims 1-14, is in condition for allowance. Favorable action thereon is respectfully requested.

Should any other matters require attention prior to allowance of the application, it is requested that the Examiner contact the undersigned.

The Commissioner is hereby authorized to charge any additional fees under 37 CFR §1.16(j) or 37 CFR 1.136(a) which may be required, or credit any overpayment, to Deposit Account No. 502-665 in the name of GE Healthcare, Inc.

Respectfully submitted,

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